

## **Historic, Archive Document**

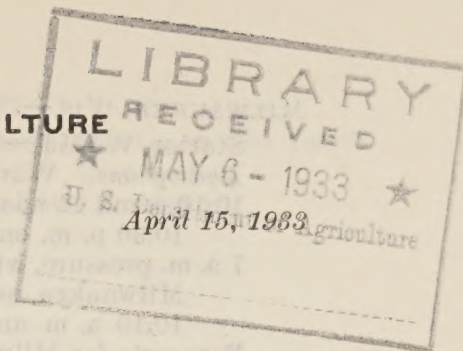
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UNITED STATES DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
WASHINGTON

Forecast Division



CIRCULAR

DISTRIBUTION OF WEATHER INFORMATION, FORECASTS, AND WARNINGS  
BY RADIO FOR THE BENEFIT OF NAVIGATION ON THE GREAT LAKES

Weather forecasts and information for such States as are contiguous to the Great Lakes, and forecasts and warnings for the Great Lakes, are broadcast by radio from a number of broadcasting stations cooperating with the United States Weather Bureau. The broadcasts of weather forecasts, warnings, and other pertinent information have been arranged so as to be of special benefit to navigation, shipping, and aviation interests of the Great Lakes region, and are made daily, except as noted, from stations at important Lake ports. The daily forecasts of wind and weather are made separately for the upper and lower Lakes, and are broadcast accordingly. In the following schedules central standard time (C. S. T.) or eastern standard time (E. S. T.) is used, as indicated:

RADIO BROADCASTING STATIONS AND SCHEDULES

DULUTH, MINN.

Station WEBC.—Head of the Lakes Broadcasting Co.

*Radiophone.* Wave length 232.2 meters; 1,290 kc/s.

6:50 a. m., 11:15 a. m., 3:30 p. m., 5:30 p. m., and 12 midnight, C. S. T. (Except Sundays.)

7 a. m. pressure, wind, and weather at Duluth, Port Arthur, Houghton, Marquette, and Sault Ste. Marie.

7 a. m. wind and weather at Portage and Whitefish Point.

Forecasts for Duluth-Superior and vicinity, Minnesota, and Wisconsin.

Pressure extremes, locations of highs and lows.

Forecasts for the upper Lakes.

Storm warnings whenever issued.

Station WRL.—Radiomarine Corporation of America.

*Radiotelegraph.* Wave length 660 meters, ACCW; 454 kc/s.

9 a. m., 4 p. m., and 9:30 p. m., C. S. T.

7 a. m. pressure, wind, and weather at Duluth, Port Arthur, Houghton, Marquette, and Sault Ste. Marie.

7 a. m. wind and weather at Portage and Whitefish Point.

Pressure extremes, locations of highs and lows.

Forecasts for the upper Lakes.

Storm warnings whenever issued.

WEST DE PERE, WIS.

Station WHBY.—Incorporated.

*Radiophone.* Wave length 250 meters; 1,200 kc/s.

12 noon and 7:15 p. m., C. S. T. (Except Sundays and holidays.)

Forecasts for Green Bay and Wisconsin.

Forecasts for the upper Lakes.

Storm warnings whenever issued.

MILWAUKEE, WIS.

Station WISN.—American Radio News Corporation.

*Radiophone.* Wave length 260.7 meters; 1,120 kc/s.

8:45 a. m. and 9:45 p. m., C. S. T. (Except Sundays and holidays.)

Forecasts for Milwaukee and vicinity.

Storm warnings whenever issued.



## MILWAUKEE, WIS.—Continued.

Station WTMJ.—The Milwaukee Journal.

*Radiophone.* Wave length 483.6 meters; 620 kc/s.

10:10 a. m., 12 noon, 6 p. m., and 10:30 p. m., C. S. T. (Except 10:15 p. m. only on Sundays; 10:30 p. m. only on holidays.)

7 a. m. pressure, wind, and weather at Alpena, Chicago, Escanaba, Grand Haven, Ludington, Milwaukee, and Sault Ste. Marie; wind and weather at Mackinaw and Plum Island at 10:10 a. m. and 12 noon.

Forecasts for Milwaukee and vicinity, Wisconsin, and Illinois at 10:10 a. m. and noon.

Forecasts for Milwaukee only at 6 p. m.

Forecasts for Milwaukee and upper Lakes at 11:15 p. m.

Storm warnings whenever issued.

## CHICAGO, ILL.

Station KYW—KFKX.—Westinghouse Electric and Manufacturing Co.

*Radiophone.* Wave length 294.1 meters; 1,020 kc/s.

10:30 a. m., and either 9:45 p. m., or 10 p. m., C. S. T.\*

Forecasts for Chicago and vicinity.

Storm warnings whenever issued.

Station WAAF.—Drovers Journal Publishing Co.

*Radiophone.* Wave length 326 meters; 920 kc/s.

12:30 and 1:45 p. m., C. S. T. (Except Sundays and holidays.)

Forecasts for Illinois, Indiana, Wisconsin, Minnesota, and Upper and Lower Michigan.

Forecasts for upper and lower Lakes.

General forecast.

Storm warnings whenever issued.

Station WBBM.—WBBM Broadcasting Corporation.

*Radiophone.* Wave length 390 meters; 770 kc/s.

10 a. m. and 9:45 p. m., C. S. T.\* (Except Sundays and holidays.)

Forecasts for Chicago and vicinity.

Storm warnings whenever issued.

Station WCFL.—Chicago Federation of Labor.

*Radiophone.* Wave length 309 meters; 970 kc/s.

1:30 p. m., and 10:10 p. m., C. S. T.\* (Except Sundays and holidays.)

Forecasts for Chicago and vicinity.

Forecasts for upper and lower Lakes.

Storm warnings whenever issued.

Station WGN—WLIB.—WGN—Incorporated.

*Radiophone.* Wave length 417 meters; 720 kc/s.

10:30 a. m. and at 10:30 p. m., C. S. T.\*

Forecasts for Chicago and vicinity, Illinois, Indiana, Lower Michigan, Upper Michigan, and Wisconsin.

Forecasts for upper and lower Lakes.

Storm warnings whenever issued.

Station WGO.—Radiomarine Corporation of America.

*Radiotelegraph.* Wave length 660 meters, CW.; 454 kc/s.

11 a. m., 4 p. m., and 9 p. m., C. S. T.\*

7 a. m. and 7 p. m. pressure, wind, and weather at Chicago, Grand Haven, Milwaukee, Ludington (a. m. only), Escanaba, and Sault Ste. Marie; and wind and weather at Whitefish Point.

7 a. m. wind and weather at Beaver Island, Mackinaw, and Plum Island at 11 a. m. only.

Forecasts for Chicago and vicinity.

Forecasts for the upper and lower Lakes.

Storm and small craft warnings whenever issued.

Station WLS.—Agricultural Broadcasting Co.

*Radiophone.* Wave length 345 meters; 870 kc/s.

6:20 a. m., 10:10 a. m., and 11:45 a. m., C. S. T.\* (Except 1:30 p. m. only on Sundays.)



## CHICAGO, ILL.—Continued.

Forecasts for Chicago and vicinity, Illinois, Indiana, Ohio, Wisconsin, and Upper and Lower Michigan.

General forecast and weather conditions (except at 2:30 p. m. only on Sundays).

Forecasts for upper and lower Lakes.

Storm warnings whenever issued.

Station WMAQ.—National Broadcasting Co., Inc.

*Radiophone.* Wave length 448 meters; 670 kc/s.

9 a. m. and 10:30 p. m., C. S. T.\*

Forecasts for Chicago and vicinity.

Forecasts for upper and lower Lakes.

Storm warnings whenever issued.

## LUDINGTON, MICH.

Station WKBZ.—Karl L. Ashbacher.

*Radiophone.* Wave length 200 meters; 1,500 kc/s.

10 a. m., 11 a. m., 12:30 p. m., and 6 p. m., E. S. T. (Except Sundays and holidays.)

Forecasts for Ludington and Lower Michigan.

Forecast for Lake Michigan.

Summary of weather conditions.

Storm, frost, and cold wave warnings.

## ROGERS CITY, MICH.

Station WLC.—The Central Radio Telegraph Co.

*Radiotelegraph.* Wave length 660 meters, ICW; 454 kc/s.

10 a. m., E. S. T. State of weather and wind direction and velocity at Mackinaw, Middle Island, Alpena, Tawas Point, Harbor Beach, and Port Huron; barometric pressure at Alpena and Port Huron.

10 a. m. and 10 p. m., E. S. T. Weather forecast for upper and lower Lakes; storm and advisory warnings whenever issued.

## ALPENA, MICH.

Station WNO.—Michigan Wireless Telegraph Co.

*Radiotelegraph.* Wave length 660 meters, ICW; 454 kc/s.

8:50 a. m., E. S. T. State of weather, wind direction, and velocity at Mackinaw, Middle Island, Alpena, Tawas Point, Harbor Beach, and Port Huron; barometric pressure at Alpena and Port Huron.

10:20 a. m., E. S. T. Forecasts for upper and lower Lakes; storm and advisory warnings whenever issued.

## DETROIT, MICH.

Station WXYZ.—Kunsky-Trendle Broadcasting Corporation.

*Radiophone.* Wave length 241.8 meters; 1,240 kc/s.

12 noon and 6 p. m., E. S. T. (Except Sundays and holidays.)

Forecasts for Detroit and Lower Michigan.

Forecasts for upper and lower Lakes.

Station WJR.—WJR, The Goodwill Station, Inc.

*Radiophone.* Wave length 400 meters; 750 kc/s.

Between 6:30 p. m., and 9 p. m., E. S. T., (commercial program schedules permitting). (Except Sundays and holidays.)

Forecasts for Detroit and Lower Michigan.

Forecasts for the upper and lower Lakes.

Summary of weather conditions.

Storm warnings whenever issued.

Station WMBC.—Michigan Broadcasting Co., Inc.

*Radiophone.* Wave length 211.1 meters; 1,420 kc/s.

12:30 p. m. and 5:15 p. m., E. S. T. (Except Sundays and holidays.)

\*One hour earlier during period of "Daylight Saving Time", April 30 to September 24.



## DETROIT, MICH.—Continued.

Forecasts for Lower Michigan and Detroit.

Forecasts for the upper and lower Lakes.

Summary of weather conditions.

Station WWJ.—Evening News Association, Inc.

*Radiophone.* Wave length 325.9 meters; 920 kc/s.

12 noon and 12 midnight, E. S. T. (Except Sundays and holidays.)

Forecasts for Detroit and vicinity; Lower Michigan, Upper Michigan, Indiana, and Ohio.

Forecasts for upper and lower Lakes.

Summary of weather conditions.

Storm warnings whenever issued.

Station WJBK.—James F. Hopkins, Inc.

*Radiophone.* Wave length 218.8 meters; 1,370 kc/s.

12:45 p. m. and 5 p. m., E. S. T. (Except Sundays and holidays.)

Forecasts for Detroit and Lower Michigan.

Station WCV.—Michigan Wireless Telegraph Co. (Wyandotte, Mich.)

*Radiotelegraph.* Wave length 660 meters; 454 kc/s.

10:20 a. m., E. S. T.

Forecasts for upper and lower Lakes.

Station CKOK.—Exxex Broadcasters, Limited.

*Radiophone.*—Wave length 555.6 meters; 540 kc/s.

6:15 p. m., E. S. T. (Except Sundays and holidays.)

Forecasts for Detroit and vicinity; Lower Michigan, Upper Michigan, Indiana, and Ohio, and the upper and lower Lakes during season of navigation.

## TOLEDO, OHIO.

Station WSPD.—Toledo Broadcasting Co.

*Radiophone.*—Wave length 223.9 meters; 1,340 kc/s.

8 a. m., 12 noon, 6 p. m., and 11 p. m., E. S. T., forecasts for Toledo and vicinity, Ohio, Lower Michigan, and the lower Lakes, and weather notes and conditions, except forecast for Ohio only on Sundays and holidays.

## CLEVELAND, OHIO

Station WCY.—Radiomarine Corporation of America. (West Dover, Ohio.)

*Radiotelegraph.* Wave length 660 meters, ACCW; 454 kc/s.

10:30 a. m. and 10:30 p. m., E. S. T.

8 a. m. and 8 p. m. pressure, wind, and weather at Cleveland, Toledo, Erie, Buffalo, and Detroit.

Forecasts for the lower and upper Lakes.

Locations of "highs" and "lows".

Storm warnings for Lake Erie, and advisory warnings for the Great Lakes whenever issued.

Station WTAM.—National Broadcasting Co., Inc.

*Radiophone.* Wave length 280.4 meters; 1,070 kc/s.

7:30 a. m., 5:05 p. m., and 7:14 p. m., E. S. T. (Except Sundays and holidays.)

Forecast for Cleveland and vicinity.

12:47 p. m., E. S. T. (Except Sundays and holidays.)

8 a. m. pressure, wind, and weather at Cleveland, Toledo, Erie, Buffalo, and Detroit.

Forecasts for Cleveland and vicinity and Ohio.

Forecasts for the lower and upper Lakes.

Summary of weather conditions.

Storm warnings whenever issued.

11:05 p. m., E. S. T.

Forecast for Ohio.

Summary of weather conditions.

Storm warnings whenever issued.

Station WHK.—Radio Air Service Corporation.

*Radiophone.* Wave length 215.7 meters; 1,390 kc/s.

6 p. m., E. S. T. (Except Sundays and holidays.)

Forecasts for Cleveland and vicinity, and Ohio.

Storm warnings whenever issued.



## CLEVELAND, OHIO.—Continued.

Station WGAR.—WGAR Broadcasting Co., Inc.

*Radiophone.*—Wave length 206.8 meters; 1,450 kc/s.

12 noon, E. S. T. (Except Sundays and holidays.)

Forecasts for Cleveland and vicinity.

Storm warnings whenever issued.

11 p. m., E. S. T.

Forecast for Ohio.

Storm warnings whenever issued.

## BUFFALO, N. Y.

Station WBL.—Radiomarine Corporation of America.

*Radiotelegraph.*—Wave length 660 meters, CW; 454 kc/s.

10 a. m. and 10 p. m., E. S. T.; 8 a. m. and 8 p. m., pressure, wind, weather, and temperature at Buffalo, Toronto, Oswego, Erie, Cleveland, Toledo, Detroit, Alpena, and Parry Sound.

Forecasts for the lower Lakes.

Locations of "highs" and "lows".

Storm warnings whenever issued.

Station WGR.—Buffalo Broadcasting Corporation.

*Radiophone.* Wave length 545 meters; 550 kc/s.

9:30 a. m., 12 noon, 6:59 p. m., and 11:30 p. m., E. S. T.

Forecasts for Buffalo and western New York.

Forecasts for lower Lakes.

Storm warnings whenever issued.

Station WBEN.—WBEN, Inc.

*Radiophone.* Wave length 333 meters; 900 kc/s.

9 a. m., 12 noon, 6 p. m., and 11 p. m., E. S. T.

Forecasts for Buffalo and western New York.

Forecasts for the lower Lakes.

Storm warnings whenever issued.

Station WKBW.—Buffalo Broadcasting Corporation.

*Radiophone.* Wave length 202.7 meters; 1,480 kc/s.

12:15 p. m. and 11:10 p. m., E. S. T.

Forecasts for Buffalo and western New York.

Forecasts for lower Lakes.

Storm warnings whenever issued.

## ROCHESTER, N. Y.

Station WHAM.—Stromberg Carlson Telephone Manufacturing Co.

*Radiophone.* Wave length 260.9 meters; 1,150 kc/s.

12 noon, 6 p. m., and 11:30 p. m., E. S. T. (11:30 p. m. only on Sundays and holidays.)

Forecasts for Rochester and vicinity and western New York.

Forecasts for lower Lakes.

Storm warnings whenever issued.

Station WHEC—WABO.—WHEC, Inc.

*Radiophone.* Wave length 208.3 meters; 1,440 kc/s.

12 noon and 6 p. m., E. S. T. (Except Sundays and holidays.)

Forecasts for Rochester and vicinity.

Forecasts for lower Lakes.

Storm warnings whenever issued.

## PITTSBURGH, PA.

Station KDKA.—Westinghouse Electric and Mfg., Co.

*Radiophone.* Wave length 306 meters; 980 kc/s.

9:45 a. m., E. S. T. (Except Sundays and holidays.)

Forecasts for Pennsylvania, Ohio, and West Virginia.

12 noon, E. S. T. (Except Sundays and holidays.)

Forecasts for Pennsylvania, Ohio, and West Virginia.

Weather conditions.



## PITTSBURGH, PA.—Continued.

River stages and forecasts.

Storm warnings for Great Lakes whenever issued.

4:30 p. m. and 6:16 p. m., E. S. T. (Except Sundays and holidays.)

Forecasts for western Pennsylvania, Ohio, and West Virginia.

11:12 p. m., E. S. T.

Forecasts for Pennsylvania, New York, Lower and Upper Michigan, Ohio, Indiana, North Carolina, South Carolina, Kentucky, West Virginia, Maryland, and Virginia.

Storm warnings for upper and lower Lakes whenever issued.

Station WCAE.—WCAE, Inc.

Radiophone. Wave length 245.8 meters; 1,220 kc/s.

1:00 p. m., E. S. T. (Except Sundays and holidays.)

Forecasts for western Pennsylvania, Ohio, and West Virginia.

River stages and forecasts.

1 a. m., E. S. T.

Forecasts for western Pennsylvania, West Virginia, and Ohio.

Broadcasts are made throughout the year from the following radio stations: WEBC, WHBY, WISN, WTMJ, KYW—KFKX, WAAF, WBBM, WCFL, WGN—WLIB, WLS, WMAQ, WJR, WMBC, WKBZ, WXYZ, WJBK, WWJ, WSPD, WBEN, WTAM, KDKA, WGR, WKBW, WHAM, WCAE, and WHEC—WABO. All other stations broadcast only during the season of navigation on the Great Lakes.

Storm warnings, weather conditions at certain indicated Lake points, and the forecasts for the upper and lower Lakes are broadcast only during the season of navigation.

*C. H. Marwin.*

Chief of Bureau.

This edition supersedes all other editions of this Circular, dated April 1, 1926, 1927, 1928, and 1929, ~~July 1~~, 1930, April 1, 1931, and April 15, 1932.

Additional copies of this Circular may be procured on application to any Weather Bureau Office at Great Lake ports or to Washington, D. C.

(WB-4-19-33-2,000)







February 10, 1904

Dear Mr. [Name]

I have your letter of the 8th inst. and am glad to hear that you are interested in the [Project]. I am sure that the [Project] will be of great value to the [Institution].

I have been thinking of you and the [Project] very much lately. I am sure that you will find the [Project] very interesting and profitable. I am sure that you will find the [Project] very interesting and profitable. I am sure that you will find the [Project] very interesting and profitable.

I am sure that you will find the [Project] very interesting and profitable. I am sure that you will find the [Project] very interesting and profitable. I am sure that you will find the [Project] very interesting and profitable.

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